Draft

Information Paper

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SUBJECT: Blue-Green Algae in Lower Granite Reservoir

PURPOSE: To provide information.

Blue-Green Algae is both a plant and a kind of bacteria. These cells have to convert sunlight and carbon dioxide into energy or food for itself. There are several kinds or plant families of algae that inhabit fresh waters. There are green algae species that normally start growing in the spring. This family is generally considered the good species to have since they provide plant material for plankton to graze on and the fish use the plankton as a food source. Another family is made up of blue green algae species. These species are most commonly found in summer and fall months in highly productive lakes all over North America. Another name for blue green algae is Cyanobacteria because its cell structure is similar to that of bacteria without the food producing pigments.

There are two genus groups of blue green algae most commonly found to some degree in the lower Snake River and its tributary systems. Some people use the "nicknames", "Fanny" and "Annie" to remember their big scientific names. The first one is *Anphanizomenon sp.*? Fanny's primary visual recognition characteristics are that it forms colonies of long fine cellular strings. The colonies can resemble clumps of fresh grass clippings from your mower during its earlier stages. Most people would avoid recreating in it because the thick pond scum sticks to everything or everyone it comes in contact to; it has a foul smell; and it has poor aesthetic value at the recreation site.

Anabaena sp. ("Annie") is another blue green algae genus group found in the Lower Snake River System. It can resemble a large floating blanket of pond scum. Its best recognition characteristic is the numerous jellybean size air bladders in it that act as floats. "Annie" can be more toxic than "Fanny" (*Anabaena lemmermanni*) can have two forms; one is the toxic form and the other is the ugly but harmless form.

This is not the first time there have been algae blooms. In other low water years, it has been reported by boaters and photographed in the Lower Granite Pool in late September. Most complaints were associated with fouled outboard motor propellers and plugged water jet pumps. There are some preventative measures that could be used to control or slow its growth. Chemicals are commercially available to treat nuisance algae blooms in ponds and lakes.

Normally the blue green algae bloom should continue to grow until the air and water temperatures get colder sometime in late fall. As the algae starts to die off nutrients and decaying cell material is released into the water. The water becomes more odorous and murky. Eventually other bacteria will break down the decaying algae and clear up the water significantly in late fall and early winter.